

Interrelationship between Keeping School Experience Diaries and Student Teachers Empathic Tendencies

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Abstract: The study aimed to examine to what extent preservice chemistry teachers in school experience and teaching practice would benefit from empathic tendencies through diary keeping. The sampling of the study consisted of 12 student teachers studying at Hacettepe University Faculty of Education. In the research, Empathic Tendency Scale (Kocak & Onen, 2013) was used with the aim of collecting data. Within the framework of the research, preservice chemistry teachers were asked to keep school experience diaries in order to identify the interrelationship between preservice chemistry teachers' empathic tendencies and expression in the experience diaries. In addition, elements related to the empathic tendencies of preservice chemistry teachers were eliminated from the student diaries produced in a systematic way to determine empathic tendencies. In this study it is tried to demonstrate how it could be more effective the courses which will be applied in the years ahead.

Keywords: School experience, Teaching practice, Empathic tendencies, Preservice chemistry teachers

Introduction

Empathy is the process where individuals understand the thoughts and feelings of another while feeling the same way and communicating this to the other under a certain circumstance. Empathy, in educational settings, is a tool in establishing an effective communication between educators and students and in the implementation of training programs; and as well it is a feature, which should be attained by the future planners of the education sector (Ford, 1979 cited in Uğur, 2007; Köksal & Koçer, 2005; Rogers, 1983). While empathy was seen as an innate ability, today's authors and educators see empathic communication as a skill that can be learned and taught (Plomin, 1990). Delisio (2006) stated that although most people see empathy as a characteristic trait, in reality, empathy is a social skill, which can and ought to be taught in schools. In addition, given the need for mutual understanding and love between teachers and students, empathy could be clearly seen as a necessity. In this respect, teachers have to use and make beneficial use of empathy in their communications regarding both learning and teaching dimensions (Koçak & Onen, 2013).

Individuals with high empathic tendency levels act constructively within their attempts to understand others and consider the other parties during conflicting situations (Rehber & Atıcı, 2009), empathic tendencies and skills of student teachers should be sufficient. According to Perry (1968), mental and moral development in the first years of university depend on strict and external authorities; as well, the more strict an individual's mental and moral development is, the more the individual tends to act strictly in empathizing (Davis, 1982). Therefore, before starting their teaching profession, student teachers should experience required educational activities to attain empathic skills and to determine their empathic tendencies. Although empathic behaviors could not be taught directly to individuals, some activities could be taught to enable them to uncover their weaknesses and strengths, reveal their existing empathic values and increase their self-awareness. In other words, it is not easy to teach empathy (Okvuran, 1993); however, assistance could be provided for the formation of empathy (Davis, 1968; 1982; Ford, 1979 cited in Uğur, 2007; Kohlberg, 1969 cited in Okvuran, 1993; Rogers, 1975 cited in Yıldırım, 1992). In fact, the literature contains studies supportive of the fact that empathy levels of student teachers could be improved gradually in time (Ergül, 1995; Mete & Gerçek, 2005; Koçak & Onen, 2013). School Experience courses are functional and they are beneficial to familiarize the pre-service teachers with the

teaching profession (Yapıcı & Yapıcı, 2004). School Experience Course creates opportunities for preservice chemistry teachers to assimilate their experiences, relate them to the work being done at the university, and to discuss them with the instructor and other students taking the same course. In teaching practice preservice chemistry teachers are expected to acquire teaching competence and develop their teaching skills. Teacher diaries are recognized as useful introspective methods that assist in the professional development of teachers (Maneekhao & Watson Todd 2001; McDonough 1994; Thornbury 1991; Lowe 1984). Diaries are personal accounts of classroom experiences with the aim of finding new insights. They involve an inwardly reflective procedure by thinking back carefully over the lessons, putting one’s thoughts into writing and then analyzing these for deeper insights. The self-awareness generated by this contemplative procedure can be beneficial for the personal-professional development of teachers. As such, diaries form a foundation upon which to build self-awareness, responsibility and a confidence in one’s own teaching ability, all of which create an enthusiasm for change (Kirazlar, 2007). The study aimed to examine to what extent preservice chemistry teachers in school experience and teaching practice would benefit from empathic tendencies through diary keeping.

Method

The aim of the study is to examine the empathic tendencies of the preservice chemistry teachers through the diaries of the contributions of the school experience and teaching practice. The sampling of the study consisted of 12 student teachers taking school experience and teaching practice at the Faculty of Education in the Department of Chemistry Education at Hacettepe University. The study conducted through hybrid design that combines both quantitative and qualitative patterns. The Cronbach Alpha (α) reliability coefficient of Empathic Tendency Scale was calculated to be .94; where Empathic Skill subdimension was .91; Empathic Environment subdimension was .88, and Anti-empathic Attitude subdimension was .82. In the research, Empathic Tendency Scale (Kocak & Onen, 2013) was used with the aim of collecting data. Empathic Tendency Scale is acceptably reliable for the research in social sciences (Kocak & Onen, 2013). The data obtained from the scale were analyzed and interpreted with the help of SPSS 20 (Statistical Package for the Social Sciences) computer program. Within the framework of the research, preservice chemistry teachers were asked to keep school experience diaries in order to identify the interrelationship between preservice chemistry teachers’ empathic tendencies and expression in the experience diaries. Before writing up reflective diaries, they were provided ways of how to write up their diaries, stressing particularly the need to concentrate on “critical events” taken place in the classroom, and on what they felt about them. The elements related to the empathic tendencies of preservice chemistry teachers were eliminated from the student diaries produced in a systematic way to determine empathic tendencies.

Findings

Within the qualitative research dimension of the study, data collected from preservice chemistry teachers were evaluated through content analysis, while the quantitative dimension of the study was evaluated using tables displaying the statistical analysis results.

Quantitative Findings

In the research, Empathic Tendency Scale (Kocak & Onen, 2013) was used. SPSS 20 computer program was used to analyze the data obtained from preservice chemistry teachers’ pre-and post-test empathic tendencies in this first phase of the study. Descriptive statistics of the empathic tendencies, empathic skill, anti-empathic attitude and empathic environment of preservice chemistry teachers are summarized. The first results are seen in Table 1.

Table 1. The descriptive statistical results of preservice chemistry teachers towards the empathic tendencies

Subdimensions	Tests	Mean	Sd
Empathic Tendencies	Pre-test	4.53	.298
	Post-test	4.64	.361

According to the finds (Table 1) that have been acquired at the end of the research, after school experience and teaching practice, empathic tendencies of preservice chemistry teachers have increased. The post-test results ($X=4.64$) are higher than the pre-test results ($X=4.53$). As it seen in the table above, there has been a positive increase in emphatic tendencies of preservice chemistry teachers.

Table 2. The descriptive statistical results of preservice chemistry teachers towards the empathic skill

Subdimensions	Tests	Mean	Sd
Empathic Skill	Pre-test	4.59	.344
	Post-test	4.69	.338

The results of the empathic skill of the preservice chemistry teachers are shown in Table 2. The post-test results ($X = 4.69$) are higher than the pre-test results ($X = 4.59$). According to the finds that have been acquired at the end of the research, empathic skills of preservice chemistry teachers have increased.

Table 3. The descriptive statistical results of preservice chemistry teachers towards the anti-empathic attitude

Subdimensions	Tests	Mean	Sd
Anti-empathic Attitude	Pre-test	4.56	.373
	Post-test	4.38	.401

The anti-empathic attitudes of the preservice chemistry teachers were examined and indicated in Table 3. A The pre-test results ($X = 4.56$) are higher than the post-test results ($X = 4.38$). As the table shows, after school experience and teaching practice, it has emerged that participation levels of preservice chemistry teachers in anti-empathic attitude choices have decreased.

Table 4. The descriptive statistical results of preservice chemistry teachers towards the empathic environment

Subdimensions	Tests	Mean	Sd
Empathic Environment	Pre-test	4.45	.412
	Post-test	4.66	.495

According to the Table 4 that have been some changes in preservice chemistry teachers points of view about empathic environment. The post-test results ($X = 4.66$) are higher than the pre-test results ($X = 4.45$). In other words, the results indicate that the preservice chemistry teachers showed change in their empathic environment views.

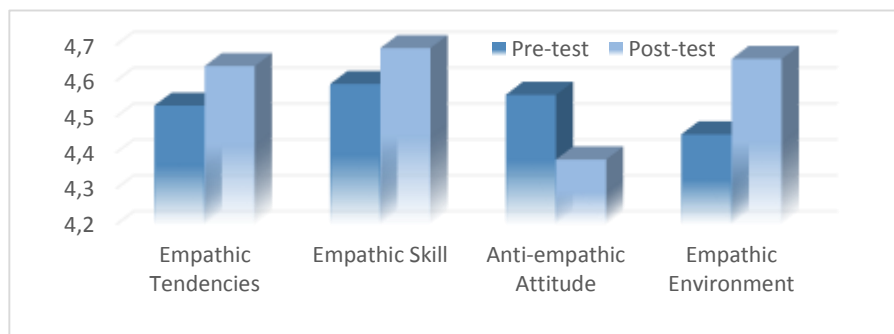


Figure 1. Empathic tendencies of preservice chemistry teachers

When the means of pre and post Empathic Tendency Scale results were taken into account, the post-test results were considerably higher than the pre-test results which might suggest that the diary study might have been effective in this change.

Qualitative Findings

The data were collected from 12 preservice chemistry teachers' diaries which were completed during 14 teaching-practice weeks in high schools. Data coming from students teachers' reflective diaries were analyzed by means of qualitative data analysis techniques. The elements related to the empathic tendencies of preservice chemistry teachers were eliminated from the student diaries produced in a systematic way to determine empathic tendencies. It should be noted that not all of the preservice chemistry teachers' diary entries are presented here, rather the most illustrative ones are included. This study tries to find answers to the following research question:

Is there a change between preservice chemistry teachers' empathic tendencies before the diary study and their empathic tendencies after the completion of the diary study?

Here are some of the statements produced by the participants:

ST11 observed the effects of strategies on teaching situation. Again in diary excerpt in the 8th week she explicitly stated how participating in this study helped her:

“Empathy and emotions are very important in communication to students. I am very happy to experience it today.”

As can be seen from diary entries, ST8 showed signs of a anti-empathic attitude

“I am very sorry for the teachers who do not have empathy skills today. Let's see what we can do...”

As can be seen from diary entries, ST3 showed signs of a negative empathy skills.

“It's not like that. Where is empathy?”

ST7 pointed out how diary study became an alternative way for her.

“When I come to school I try to make a little empathy and always think the student has a different world, a different pain and a different love ... I try to understand all of them.”

ST10 pointed out how empathical thinking became an alternative way for her.

“Am I not a student? 18 years of professional student life provides empathical thinking.”

Results and Discussion

Empathy is a process, which is more complex than feeling and thinking of an individual in place of another (Stein, 1970) has been subject to various studies on developing data collection tools to assess empathic tendencies on scientific basis (Dökmen, 1988; Özbay & Şahin, 2000). The population of the studies about empathy was formed generally adolescent (Alisananoğlu & Köksal, 2000; Hasdemir, 2007; Yılmaz, 2009), students (Beyazid & Küçükkaragöz, 1996; Sarmusak, 2011; Ural, 2010; Uyaroğlu, 2011), teachers and preservice teachers (Akbulut, 2010; Dev, 2010; Ekinci, 2009; Ekinci & Aybek, 2010; Kocak & Onen, 2013). Before starting their teaching profession, student teachers should experience required educational activities to attain empathic skills and to determine their empathic tendencies. Although empathic behaviors could not be taught directly to individuals, some activities could be taught to enable them to uncover their weaknesses and strengths, reveal their existing empathic values and increase their self-awareness (Kocak & Onen, 2013). By writing up diaries, student teachers have opportunities to reflect on the basis of their own personalised experiences that have very much meaning for them (Ekiz, 2003).

The aim of the study is to examine the empathic tendencies of the student teachers through the diaries of the contributions of the school experience and teaching practice. The study was participated by 14 preservice chemistry teachers studying at Hacettepe University, Faculty of Education. This is a two-dimensional research study where qualitative and quantitative research methods are used together. Data for this study came from: (a) Empathic Tendency Scale and (b) diary entries. The scores obtained by participating groups from The Empathic Tendency Scale (Kocak & Onen, 2013). As for the first phase of the study, primarily, the empathic tendencies of 12 preservice chemistry teachers participated in the diary study were determined with the Empathic Tendency Scale (Kocak & Onen, 2013) given at the end of the study again. As a result, it was found that there was change in their empathic tendencies, empathic skill, anti-empathetic attitude and empathic environment. However, when the means of pre and post Empathic Tendency Scale results were taken into account, the post-test results were considerably higher than the pre-test results which might suggest that the diary study might have been effective in this change.

Data collection consisted of records of participants' diary entries throughout the study. Recurring patterns in preservice chemistry teachers' diary entries were used as a measure of their empathic tendencies. The diary entries were compared to check evidence of change in the level of the preservice chemistry teachers' empathic

tendencies. The qualitative data was collected by means of reflective diaries written by preservice chemistry teachers. The researcher compared the entries of each student teacher's diary to find out evidence for development of empathic tendencies. The findings obtained from the qualitative data indicate that participating in a diary study helped them consider different means for professional development. This study showed that through diary keeping make preservice teachers gain positive empathic tendencies in general. School Experience I course is beneficial to recognize the teaching profession. In fact, these experiences can be increased by means of the increase in the communication of schools and faculties. Negative empathic tendencies related with schools and students that are encountered during School Experience course was enabled them to understand the seriousness of the teaching profession. The aim of the school experience course is to provide preservice teachers to make observations at schools, to benefit from experienced teachers and to participate in real school environment before occupation. The school experience and teaching practice are important because professional development has a tremendous impact on teachers, therefore, on their students. Calderhead and Shorrock (1997) state that teachers' past experiences influence the way they think about their work. The aim of the study, through a diary study in school experience and teaching practice to determine whether preservice chemistry teachers' empathic tendencies would change or not. Besides, the data collected from the diary were studied to determine whether there was a change in preservice chemistry teachers' empathic tendencies. In conclusion, this study sheds light on the importance of school experience diaries in teaching profession. In the light of findings, It should be concluded that the diary study is helpful in that it allows for not only a form of reflection but it also emphasizes a step-by-step look at what teachers are doing.

More specifically, no studies have investigated in school experience and teaching practice would benefit from preservice chemistry teachers' empathic tendencies through diary keeping. Hence, it is believed that this study contributes to the literature in this context. In addition, the findings of this study are expected to give feedback about what preservice chemistry teachers learnt from school experience and teaching practice courses to teacher educators. Moreover, preservice chemistry teachers encounter the teaching profession for the first time by means of school experience course. This study showed that school experience and teaching practice courses gained some experiences in their field. The limited number of participating pre-service teachers did not allow the researcher to generalize the findings to a larger group of pre-service teachers. The other limitation is whether pre-service chemistry teachers wrote the real data that they observed or not during their enrollment in School Experience courses. They might not have written what they really wanted to write. Thus, this is another limitation of the present study. According to the results, this study may help teacher educators organize their pre-service education programs.

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